

DEPARTMENT OF TRANSPORTATION

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September 24, 2003

03-Pla-80-2.4/4.8
03-375604
ACIM-080-3(230)E

Addendum No. 4

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in PLACER COUNTY IN ROSEVILLE FROM 2.4 KM EAST OF SOUTH ROSEVILLE OVERCROSSING TO 0.6 KM WEST OF ATLANTIC STREET OVERCROSSING.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on October 29, 2003, instead of October 1, 2003.

This addendum is being issued to revise the Project Plans, the Notice to Contractors and Special Provisions and the Proposal and Contract.

Project Plan Sheets 13 and 153 are revised. Half-sized copies of the revised sheets are attached for substitution for the like-numbered sheets.

In the Special Provisions, Section 10-1.27, "EARTHWORK," the fifth paragraph is revised as follows:

"At the operations building and adjacent retaining walls, existing material shall be excavated to an elevation of 50.20 meters within 1.5 meters horizontally of the building and retaining wall footing limits. The surface exposed by the excavation shall be scarified. A relative compaction of not less than 90% shall be obtained for a minimum depth of 150 mm below the bottom of the excavation.

Roadway embankment material shall be placed from the top of the over excavation limits to the bottom of the structure backfill limits at the operations building and adjacent retaining walls. The relative compaction of the roadway embankment material shall not be less than 90 percent.

At locations and to the limits shown on the plans, where structure backfill is required below the foundations of the operations building and adjacent retaining walls, backfill material shall consist of Class 2 aggregate base material in conformance with the placing and compacting requirements for structure backfill. The relative compaction shall not be less than 95 percent.

The limits of structure excavation and structure backfill shall extend 1.5 meters horizontally from the edge of the operations building and adjacent retaining wall footings and vertically from 0.60 meters below the bottom of footing to the final grade as shown on the plans.

Full compensation for structure excavation, structural backfill, and roadway embankment material at the Operations Building and adjacent retaining walls shall be considered as included in the contract prices paid for the various contract items of work and no additional compensation will be allowed therefor."

In the Special Provisions, Section 10-1.27, "EARTHWORK," subsection, "DEWATERING," is replaced as attached.

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In the Special Provisions, Section 10-1.29, "EARTH RETAINING STRUCTURES," subsection, "CONCRETE," the second paragraph is revised as follows:

"Attention is directed to "Architectural Finish (Exposed Aggregate)" of these special provisions."

In the Special Provisions, Section 10-1.42, "ARCHITECTURAL SURFACE (TEXTURED CONCRETE)," the second paragraph is revised as follows:

"Dry stack stone texture is required at concrete surfaces of the tunnel portal walls and the operations building and adjacent retaining walls."

In the Special Provisions, Section 10-1.46, "MEMBRANE WATERPROOFING," is replaced with Section 10-1.46, "PREFORMED MEMBRANE WATERPROOFING (TUNNEL)," as attached.

In the Special Provisions, Section 10-1.64, "PUMPING PLANT ELECTRICAL EQUIPMENT," in the subsection, "MATERIALS," the following paragraph is added:

"Flow Switches -- Flow switches shall be a vane-operated type with leak-proof body, in stainless steel construction. Connection size shall be 38 mm NPT (National Pipe Thread) for mounting in a 38 mm thread-o-let in the 250 mm discharge pipe. Provide flow switch with DPDT (double pole, double throw) contacts. Electrical rating shall be 10A @ 125/250 VAC (voltage, AC). Provide Dwyer "Flotect" Series V4, Model V4-SS-2-U-D or equal."

In the Special Provisions, Section 10-7, "OPERATIONS BUILDING," Note (5) of paragraph eight is revised as follows:

"(5) 180-degree bend over a 25-mm mandrel at -12.0°C"

In the Proposal and Contract, the Engineer's Estimate Item 35 is revised as attached.

To Proposal and Contract book holders:

Replace page 4 of the Engineer's Estimate in the Proposal with the attached revised page 4 of the Engineer's Estimate. The revised Engineer's Estimate is to be used in the bid.

Attached are copies of the attachments for the Foundation Recommendations for Douglas-Sunrise Connector Overcrossing and the Sunrise-E80 On Ramp Tunnel.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the proposal.

Submit bids in the Proposal and Contract book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

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This office is sending this addendum by UPS overnight mail to Proposal and Contract book holders to ensure that each receives it. A copy of this addendum and the modified wage rates are available for the contractor's use on the Internet Site:

http://www.dot.ca.gov/hq/esc/oe/weekly_ads/addendum_page.html

If you are not a Proposal and Contract book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

ORIGINAL SIGNED BY

REBECCA D. HARNAGEL, Chief
Office of Plans, Specifications & Estimates
Office Engineer

Attachments

DEWATERING

This work shall consist of dewatering the tunnel and portal construction, and includes the collection, pumping, segregation of contaminated and non-contaminated effluents, processing and disposal of non-storm water, and providing and maintaining all materials and equipment necessary to perform the operations as described in these special provisions.

Non-storm water discharges shall conform to the requirements in Section 7-1.01G, "Water Pollution" and Section 19-3 "Structure Excavation and Backfill" of the Standard Specifications and these special provisions.

The Contractor shall prevent the flow of surface runoff from entering any excavated area. A method approved by the Engineer shall be used to measure all excavation discharges.

Dewatering operations shall maintain water levels 0.3 meter below bottom of bottom slab elevations until all concrete construction within the limits of the respective segment of tunnel or portal has attained a minimum compressive strength of 18 MPa.

The Contractor shall submit to the Engineer, as provided in Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications, a plan which details the methods and measures that will be used to control ground water. The plan shall, at a minimum, contain a graphic for the dewatering operation showing both a sectional and plan view that details the removal techniques. The graphic shall define the flow path and placement of pipes, hoses, pumps, and other equipment used to convey the discharge. In addition, the Contractor shall provide a drawing that depicts the general position of the dewatering measures relative to the excavations undergoing dewatering and the point of effluent discharge. The written descriptions of the dewatering operation shall include, but are not limited to, an estimate of the discharge volume, flow rate; location of discharge; and inspection and monitoring procedures related to the discharge. The discharge plan shall also show the details of how and where water not relinquished to Chevron will be discharged by the Contractor.

The plan shall be submitted at least 3 weeks prior to beginning excavation operations. The Contractor shall allow 10 days for the Engineer to review and approve the plan. If revisions are required, as determined by the Engineer, the Contractor shall revise and resubmit the plan within 5 days of receipt of the Engineer's comments and shall allow 5 days for the Engineer to review the revisions. Excavation operations will not be allowed until the Engineer has approved the plan.

The Contractor shall pump groundwater collected from the potentially contaminated area between STA 'T' 4+25 and 'T' 4+70 into portable storage tanks for temporary storage and testing. The Contractor shall collect water samples immediately prior to discharge of the effluent in each storage tank. No additional groundwater will be added to the tank after testing, and prior to discharge. Samples shall be analyzed for TPH-diesel and TPH-gasoline by EPA Test Method 8015M, BTEX by EPA Method 8021, and MTBE by EPA Test Method 8260B. The Contractor's sampling and testing analysis shall be performed using sampling and testing procedures and detection limits required by the applicable local regulatory agencies and consistent with U.S. Environmental Protection Agency SW846. The laboratory used shall be certified by the California Department of Health Services for the required analyses.

Groundwater collected for testing shall not be commingled with groundwater collected outside of the potentially contaminated area. If contaminant concentrations are detected, the water shall not be discharged into the City of Roseville wastewater collection system or storm drain system and instead shall be relinquished to Chevron. The Contractor shall provide notification as described under "Notification Requirement" of this special provision.

The Contractor shall conduct a daily inspection of the dewatering equipment, when in use, to ensure that all components are functional and routinely maintained to prevent leakage. Should any component of the dewatering equipment be damaged or affect the performance of the equipment, the dewatering operation shall be discontinued immediately and the component shall be repaired or replaced with substitute equipment.

Upon completion of dewatering activities, a letter report shall be prepared and signed by a California Registered Civil Engineer or Geologist and include, at a minimum, the volume of removed groundwater, the volume of contaminated groundwater relinquished to Chevron, the volume of water discharged to the City of Roseville wastewater collection system, sampling procedures, and laboratory analytical results.

Materials

Materials shall conform to the provisions in Section 6, "Control of Materials," Section 7-1.16, "Contractor's Responsibility for the Work and Materials," and Section 74-2, "Drainage Pump Equipment" of the Standard Specifications and these special provisions.

The Contractor shall provide holding tanks sufficient to meet the needs of all dewatering activities described in the dewatering plan. The city-owned parcel of land near portal number 1 will be made available to the Contractor for his activities.

Holding tanks shall be transportable, totally enclosed, and capable of connecting multiple tanks in series. Holding tanks shall have an inlet and outlet capable of receiving and discharging minimum flows. Holding tanks shall be able to accommodate temporary installation of submersible pumps of such capability to discharge water. The tanks shall be of the same make and manufacturer and shall remain on the job site until de-watering operations are no longer necessary as determined by the Engineer.

Pumps shall be capable of being submerged in water and be capable of discharging water and other materials; including but not limited to, small rocks, gravel, sand and sediments. Two (2) submersible pumps will be required for this project and shall be capable, at all times, of discharging at a flow rate necessary to remove the water in the excavation. In addition, a third submersible pump shall be provided by the Contractor that is capable of discharging treated effluent from the temporary holding container to the dedicated discharge location.

Plastic piping may be approved for use as determined by the Engineer in writing. If plastic piping is used, it shall conform to the provisions in section 20-5.03E, "Pipe" of the Standard Specifications. The Contractor shall be responsible for providing all piping required to convey the clean effluent from the temporary holding container to the point of release at the dedicated discharge location.

The Contractor shall be responsible for properly maintaining all equipment and materials necessary to comply with provisions outlined in these special provisions. If the Contractor or the Engineer identifies a deficiency in the functioning of any equipment or material, the deficiency shall be immediately corrected by the Contractor.

Except for contaminated groundwater as defined in these special provisions, water from the de-watering process may be directed into the City of Roseville sanitary sewer system at the location shown on the plans. The shoring and cofferdam drawings shall define how the connection will be made to the City sanitary sewer system. The Contractor shall meter the flow of water discharged into the City of Roseville sanitary sewer system and provide the Engineer with monthly summaries of discharge. The City of Roseville Environmental Utilities Department will assess a City sewer fee of \$18.75 per 28 M3 of water discharged into the system.

Except for contaminated groundwater as defined in these special provisions, at the option of the Contractor, water from the de-watering process may be directed into the City of Roseville's storm drain system. All water from the dewatering process that is discharged into the storm drain system shall be handled in accordance with Section 10-1.02 Water Pollution Control of these special provisions. The Contractor may elect to de-water the tunnel and portal excavations by the use of well points or by the use of open sumps within the tunnel excavations. The water from the de-watering process shall be pre-treated to remove suspended solids, as approved by the Engineer.

The pumping plant pumps shall not be used by the Contractor for dewatering excavations.

Notification requirement

The Contractor shall be responsible for timely notifications during the dewatering process.

The Contractor shall provide a schedule of planned dewatering activities at the site at least 15 days prior to commencement. The schedule may be submitted via e-mail.

Chevron shall be notified at least 24 hours in advance of the need for testing effluents in the holding tanks. It shall be the Contractor's responsibility to coordinate the work and provide notification to Chevron so as not to impact the work or schedule. Chevron will remove and dispose of contaminated water within 5 working days of the test results returning positive for contamination.

The notifications shall be via both e-mail and fax to the following:

Caltrans Resident Engineer

Chevron Environmental Management Company, 6001 Bollinger Canyon Road, Bldg L., San Ramon, CA 94583, (925) 842-8898

Cambria Environmental Technology, 5051 El Don Drive, #105, Rocklin, CA 95677, (916) 630-1267

Contaminated Water Discharge

Maximum concentrations of groundwater contamination known to be present are 3,080 µg/l of Total Petroleum Hydrocarbons as Diesel (TPH-diesel), 21,200 µg/l of TPH-gasoline, 1,010 µg/l of benzene, 5,550 µg/l of xylenes, and 385 µg/l of Methyl Tertiary Butyl Ether (MTBE). The contaminated area is defined in a Problem Assessment Report prepared by Secor International as described elsewhere in these special provisions.

Chevron is the responsible party for the contaminated groundwater associated with the 251 Sunrise Avenue parcel and has ultimate legal authority regarding its management and disposition as defined elsewhere in these special provisions. Disposing of contaminated groundwater shall be the responsibility of Chevron. The Contractor shall relinquish to Chevron contaminated groundwater as defined in these special provisions.

Any modification to the disposition of discharged groundwater as defined in these special provisions shall be submitted in writing to the Engineer. No changes shall be made to the plan until the proposed modification is approved by the Engineer.

Applicable rules and regulations

Pumping, storage, transport and disposal of groundwater shall be in accordance with the rules and regulations of the following agencies:

Department of Toxic Substance Control (DTSC)
Regional Water Quality Control Board (RWQCB), Central Valley Region
United States Department of Transportation (USDOT)
United States Environmental Protection Agency (USEPA)
California Environmental Protection Agency (CAL-EPA):
California Division of Occupational Safety and Health Administration (CAL-OSHA)
Placer County Department of Health and Human Services
City of Roseville

Permits and licenses

The Contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incident to the due and lawful prosecution of the work. The California Environmental Quality Act (CEQA) of 1970 (Chapter 1433, States. 1970), as amended, may be applicable to permits, licenses and authorizations which the Contractor shall obtain from all agencies in connection with performing the work of the contract. The Contractor shall comply with the provisions of said statutes in obtaining such permits, licenses and other authorizations.

The Contractor's attention is directed to the provisions in the Water Quality Control Board Statewide General Construction Permit.

The Contractor shall be responsible for penalties assessed or levied on the Contractor or the Department as a result of the Contractor's failure to comply with the provisions in this section "Dewatering", and as specified in Section 7-1.01G, "Water Pollution Control" of these special provisions.

Full compensation for the pre-treatment to remove suspended solids shall be considered as included in the contract unit price paid per cubic meter for structure excavation (Tunnel) (Type D) and no additional compensation will be allowed therefor.

Structure excavation and backfill for the pumping plant structure will be measured and paid for as structure excavation (Tunnel) (Type D) and structure backfill (tunnel), respectively.

Full compensation for collecting, pumping, segregating contaminated and non-contaminated effluents, processing and disposal of non-storm water; and for furnishing and maintaining all equipment and materials for dewatering the tunnel and portal construction shall be included in the contract price paid for Structure Excavation (Tunnel) (Type D) and Structure Excavation (Tunnel) (Type DH) and no additional compensation will be allowed therefor.

10-1.46 PREFORMED MEMBRANE WATERPROOFING (TUNNEL)

This work shall consist of furnishing and applying a preformed membrane waterproofing system at the Sunrise-E80 On Ramp Tunnel, as shown on the plans, and in conformance with these special provisions

A Certificate of Compliance conforming to the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications shall be furnished for the preformed membrane sheet. The Certificate of Compliance shall include the following information: (1) type of preformed membrane sheet, and (2) the conditioner or primer application rates.

The preformed membrane waterproofing system shall consist of an adhesive, conditioner or primer applied to a prepared surface; a preformed membrane sheet of rubberized asphalt or polymer modified bitumen; mastic or tape for sealing the edges of the sheet; and a protective covering over the sheet held by an adhesive.

The preformed membrane sheet shall be either permanently applied to a polyethylene film or reinforced with a polypropylene mesh fabric, polyester/polypropylene fabric or a fiberglass mesh fabric. The membrane sheet shall conform to the following requirements:

Property	Test	Requirement	
		Polyethylene Film	Fabric Reinforced
Tensile Strength (Minimum)(1)	ASTM D 882 (2)	3.5N/mm (3)	3.5N/mm (3)
Percent Elongation at break (Minimum) (4)	ASTM D 882 (2)	150 percent (3)	25 percent (3)
Pliability	ASTM D 146 (5)	No cracks	No cracks
Thickness (Minimum) (6)	-----	1.5 mm	1.5 mm
Rubberized Asphalt Softening Point (Minimum)	AASHTO T 53	74°C	74°C
Polymer Modified Bitumen Softening Point (Minimum)	AASHTO T 53	99°C	99°C

Notes:

(1) Breaking factor in machine direction.

(2) Method A, average 5 samples.

(3) At 23°C ± 2°C

(4) Machine direction.

(5) 180-degree bend over a 25-mm mandrel at -12.0°C

(6) Total thickness of preformed membrane sheet and polyethylene film or fabric reinforcement.

Adhesives, conditioners, primers, mastics and sealing tapes shall be manufactured for use with the respective preformed membrane sheet materials and shall be applied according to the manufacturer's recommendations.

The protective covering shall be 3-mm minimum thickness hardboard or other material that furnishes equivalent protection. Backfill material and equipment shall not cut, scratch, depress or cause any other damage to the preformed membrane.

Concrete surfaces designated to receive preformed membrane waterproofing shall be thoroughly cleaned of dirt, dust, loose or unsound concrete, and other extraneous material and shall be free from fins, sharp edges, and protrusions that would, in the opinion of the Engineer, puncture or otherwise damage the membrane. Sharp corners to be covered shall be rounded (outside) or chamfered (inside).

When the preformed membrane is to be placed directly on the soil, the soil shall be compacted to produce an even sound substrate.

Surfaces shall be dry when components of the preformed membrane waterproofing system are applied.

Preformed membrane waterproofing shall not be applied to any surface until the Contractor is prepared to follow its application with a protective covering within a sufficiently short time, so that the membrane will not be damaged by workers or equipment, exposure to weathering, or from any other cause. Damaged membrane or protective covering shall be repaired or replaced by the Contractor at the Contractor's expense.

The preformed membrane shall be placed with the protective covering facing the concrete to be poured.

All projecting pipe, conduits, sleeves or other facilities passing through the preformed membrane waterproofing shall be flashed with prefabricated or field-fabricated boots, fitted coverings or other devices as necessary to provide watertight construction.

All conditioner or primers shall be thoroughly mixed and continuously agitated during application. Conditioner, primers or adhesive shall be allowed to dry to a tack free condition prior to placing membrane sheets.

The surfaces shall be recoated if membrane sheets are not placed over primer, conditioner or adhesive within the time recommended by the manufacturer.

The preformed membrane sheet shall not be applied in wet or foggy weather, nor when the ambient temperature is below 4°C.

Preformed membrane material shall be placed starting at the bottom and lapped by a minimum of 150 mm at splices and at repairs to holes or tears.

Exposed edges of membrane sheets shall have a trowelled bead of manufacturer's recommended mastic or sealing tape applied after the membrane is placed.

The surface of the preformed membrane shall be cleaned free of dirt and other deleterious material before the protective covering is placed.

The protective covering shall be placed on a coating of adhesive of a type recommended by the manufacturer. The adhesive shall be applied at a rate sufficient to hold the protective covering in position until the backfill is placed.

Preformed membrane waterproofing (tunnel) will be measured and paid for by the square meter as shown on the plans.

The contract price paid per square meter for preformed membrane waterproofing (tunnel) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all work involved in furnishing and applying the preformed membrane waterproofing system, complete in place, as shown on the plans, and as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

ENGINEER'S ESTIMATE
03-375604

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
21	150668	REMOVE FLARED END SECTION	EA	6		
22	031604	REMOVE YELLOW TRAFFIC STRIPE	M	2220		
23	031605	REMOVE WHITE TRAFFIC STRIPE	M	540		
24	150742	REMOVE ROADSIDE SIGN	EA	56		
25	150760	REMOVE SIGN STRUCTURE	EA	1		
26	150767	REMOVE BRIDGE MOUNTED SIGN	EA	1		
27	150805	REMOVE CULVERT	M	230		
28	150820	REMOVE INLET	EA	12		
29	150821	REMOVE HEADWALL	EA	1		
30	150826	REMOVE MANHOLE	EA	2		
31	150829	REMOVE RETAINING WALL	M	34		
32	150860	REMOVE BASE AND SURFACING	M3	700		
33	152390	RELOCATE ROADSIDE SIGN	EA	12		
34 (S)	153151	COLD PLANE ASPHALT CONCRETE PAVEMENT (25 MM MAXIMUM)	M2	17 700		
35 (S)	031606	COLD PLANE ASPHALT CONCRETE PAVEMENT (50 MM MAXIMUM)	M2	1800		
36	153210	REMOVE CONCRETE	M3	230		
37	153221	REMOVE CONCRETE BARRIER	M	28		
38	160101	CLEARING AND GRUBBING	LS	LUMP SUM	LUMP SUM	
39	190101	ROADWAY EXCAVATION	M3	38 100		
40	190110	LEAD COMPLIANCE PLAN	LS	LUMP SUM	LUMP SUM	